



sPHENIX Status RHIC Coordination

July 15th, 2025

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sPHENIX Run Coordinator

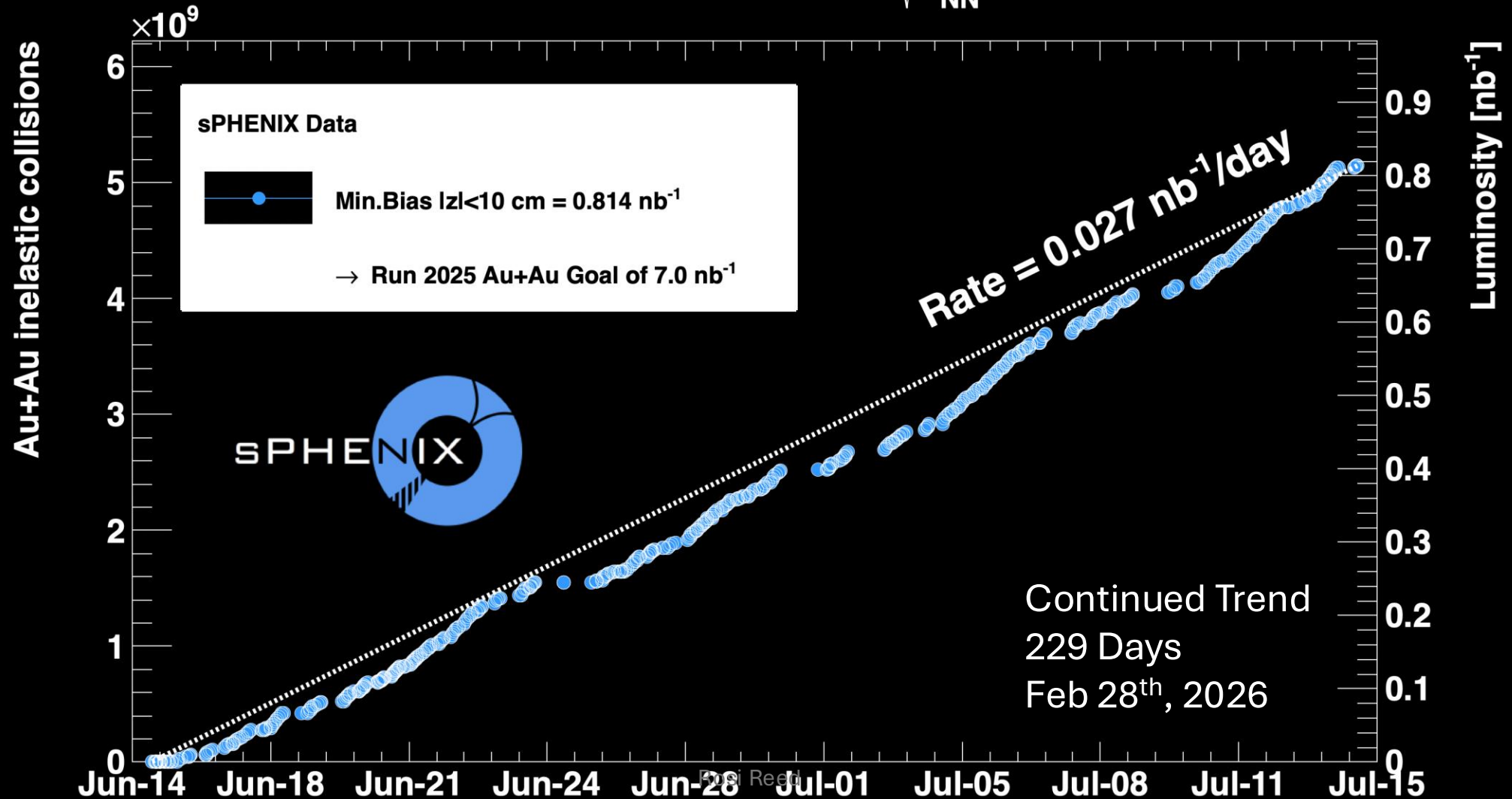


Ron Belmont
UNC Greensboro
sPHENIX Deputy Run Coordinator

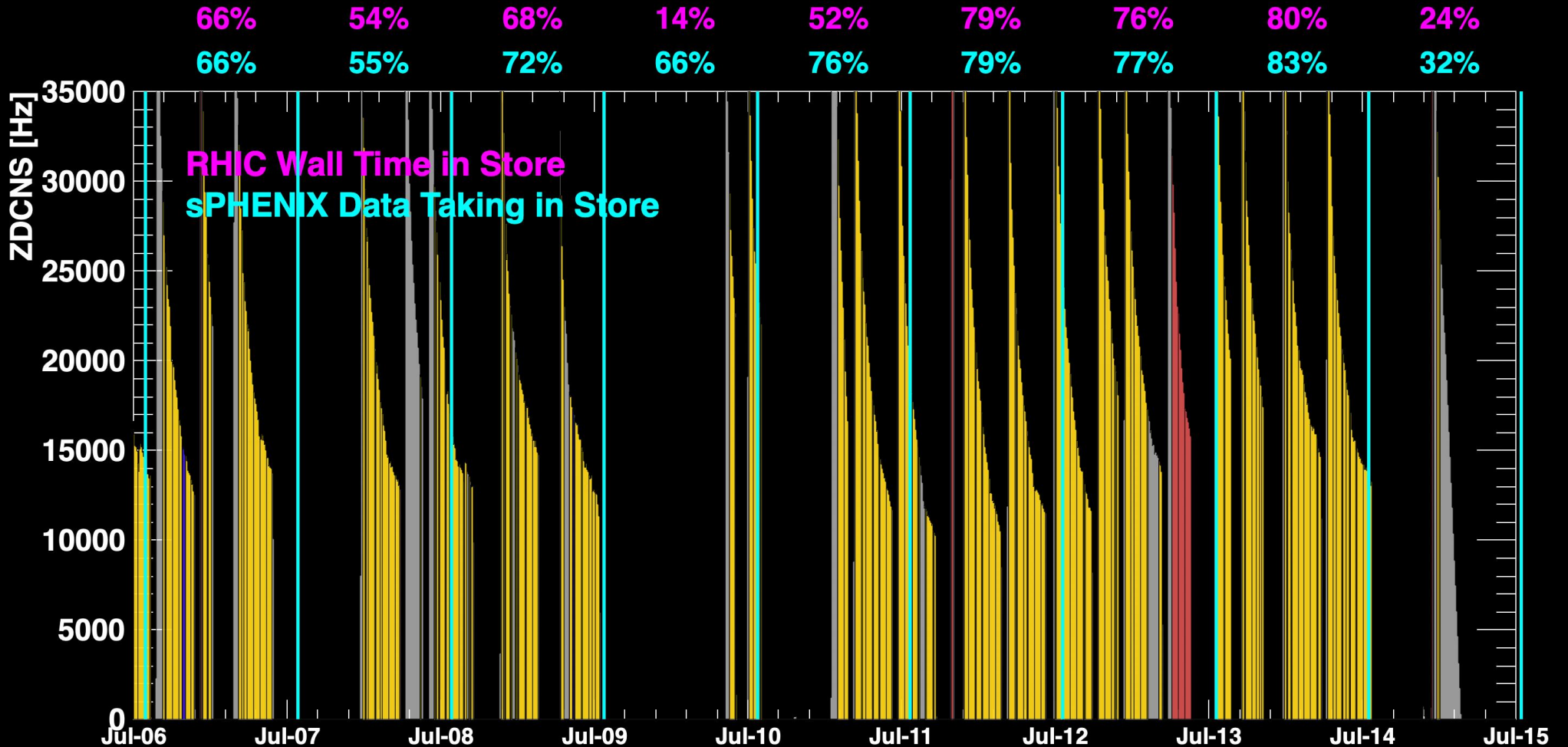


sPHENIX Integrated Luminosity

sPHENIX Run 2025 Au+Au $\sqrt{s_{NN}} = 200$ GeV



sPHENIX Wall Time



TPC Digital Current

- New TPC Firmware installed on all of our sectors Wednesday July 9th!
 - More work → more current draw → a few boards browned-out
 - Required digital lines adjustment from about 3.2 → 3.5 V
 - All FEEs are back, temp increased slightly, not a problem
 - Configuration for recording DC not yet set → This week, hopefully today
 - Analysis of offline data from Wednesday is ongoing, online data was reasonable
 - Digital Current Packets tested via junk runs
 - Tested with triggered data
- Cross-check by running TPC in full streaming mode with the digital current
- DC allows improved TPC distortion correction



TPC HV Power Supply Issue

July 13th



Swap of Primary PS

HvPwSM	1:1:A4533:0:0
HvFanStat	1:3576:1:3647:1:36
ClkFreq	1
HvClkConf	1:0
IPAddr	10.20.35.13
IPNetMsk	255.255.254.0
IPGw	10.20.34.1
PwCurrent	1.53A:4.35A:0.00A:

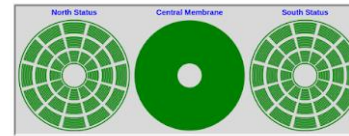
Access



Swap Prim.



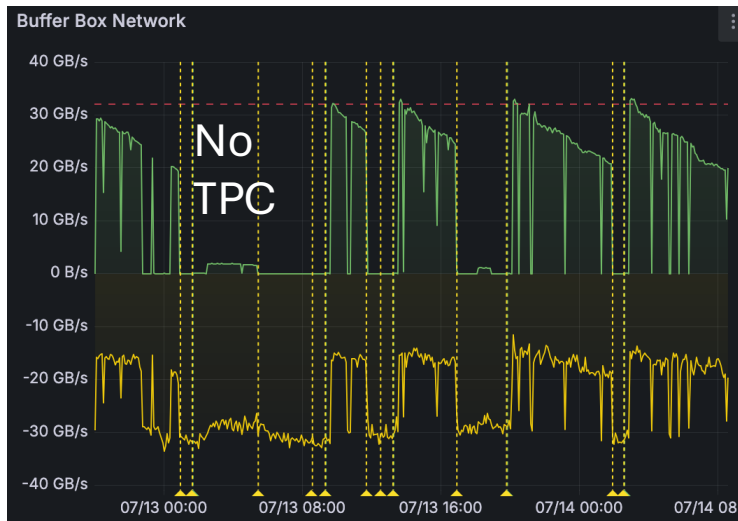
OK?



HvPwSM	1:-1:-1:0:0
HvFanStat	1:3540:1:3647:1:35
ClkFreq	1
HvClkConf	1:1
IPAddr	10.20.35.12
IPNetMsk	255.255.254.0
IPGw	10.20.34.1
PwCurrent	1.44A:4.45A:0.00A:

• Failure of one TPC HV crate.

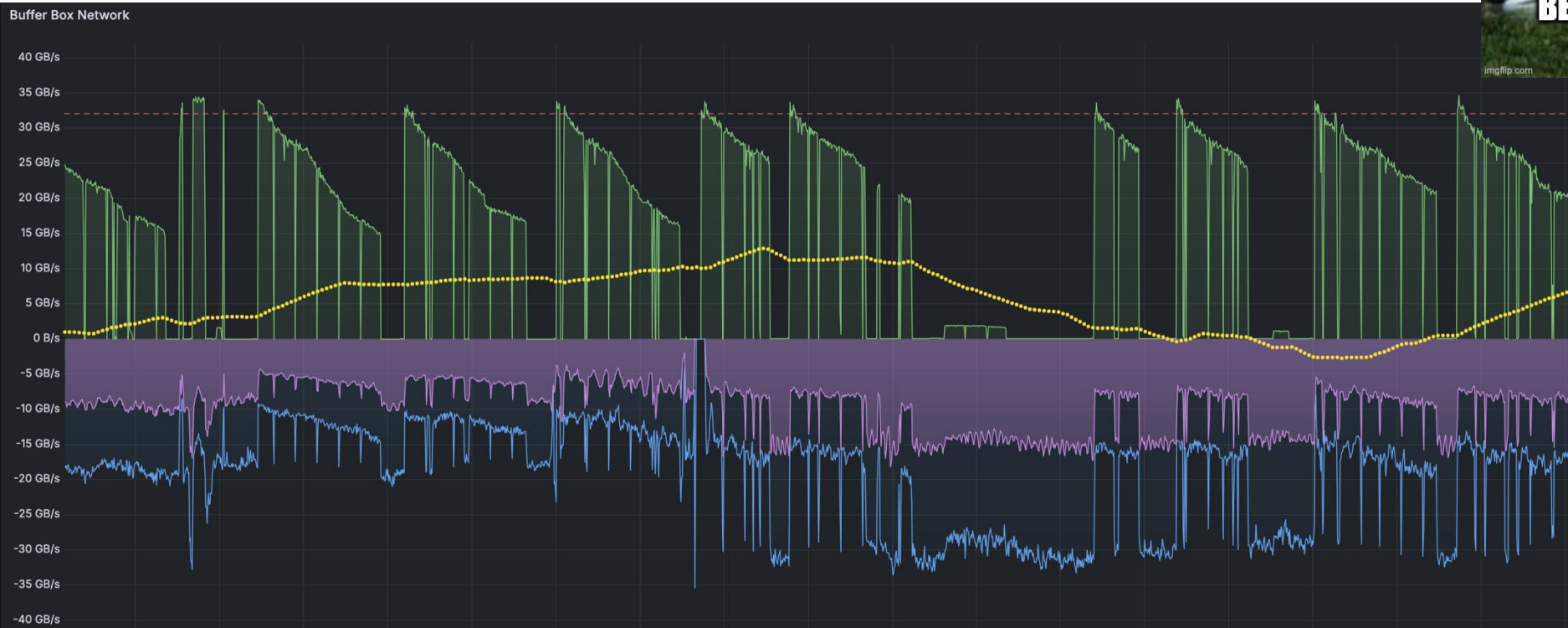
- South side 1 - 6 O' Clock all dead.
- Several hours of work did not recover functionality.
- Ran "All-but-TPC".
- Access was required
- Replaced just in time for power dip → Then determined Booster PS also needed to be swapped
 - After second CA all was good



Data recorded

Data sent to
HPSS/Lustre

Data Volume



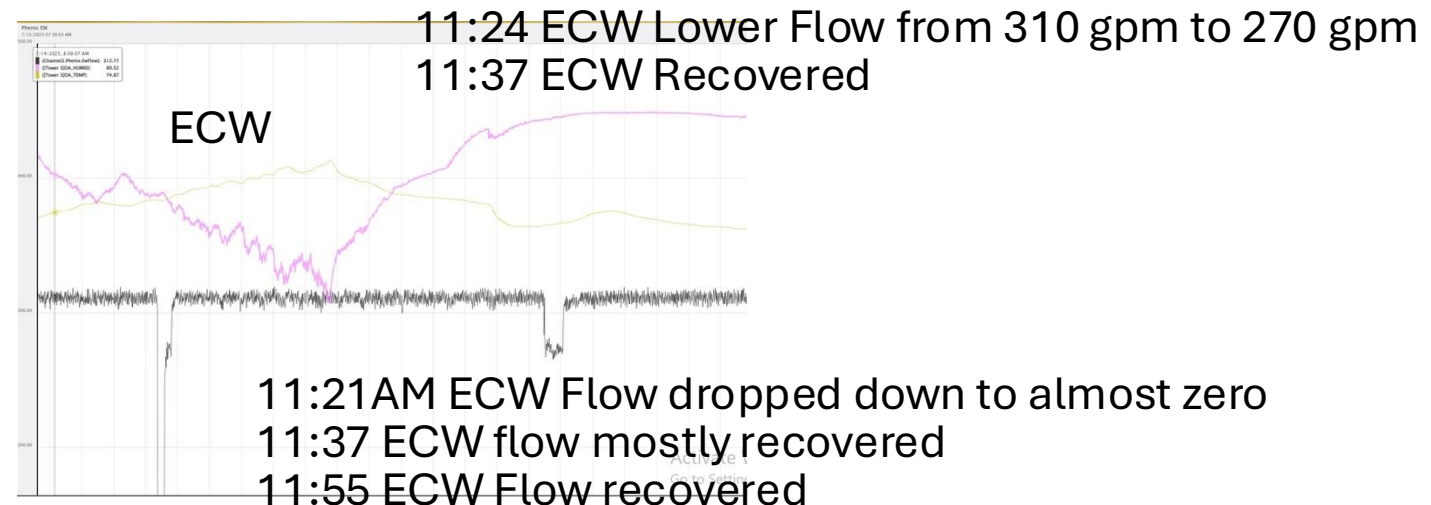
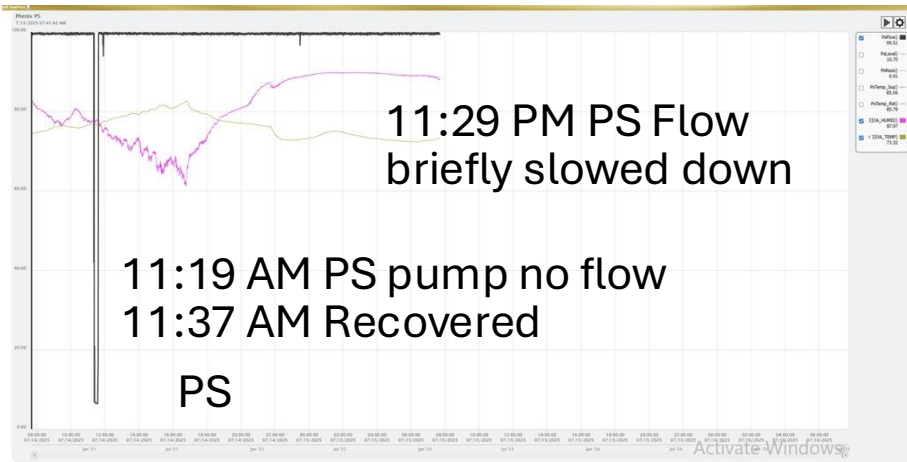
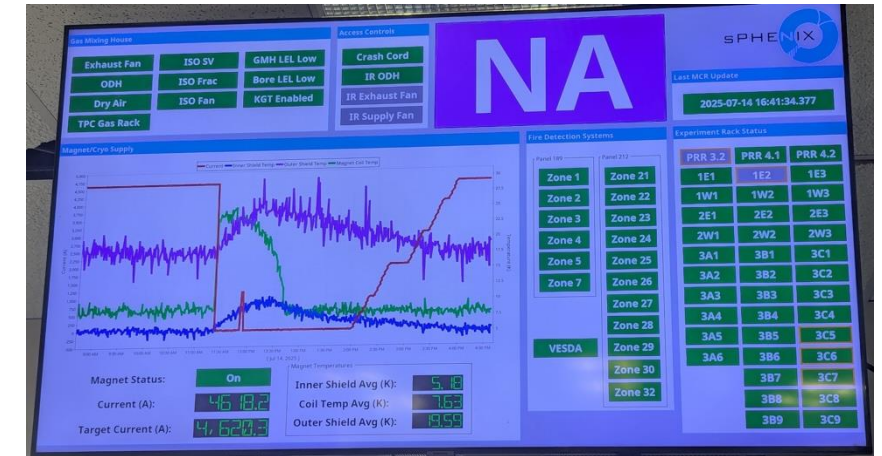
- Data Recorded
- Data to HPSS
- Data to SDCC
- **24 running average data in – data out**

Continuing to work on optimizing data throughput

59.48 PB to HPSS since April 1st

1008C Pump Room Issue

- Magnet tripped at 1119am and 1124pm yesterday
 - Recovered magnet by 4 pm
 - Elected to keep magnet off after 1124 pm trip
- Racks tripped for 11 am incident
- Investigation in process by C-AD experts
 - Turn on magnet after tests today



This week

- High angle (1.5, 2 mRad) crossing angle check
- TPC Digital Current upgrade → Increase data volume ~5%
 - Start today (waiting for magnet to turn on)
 - Confirm data integrity after tests
 - Run in our current configuration after tests
- Vernier scan to validate cross-sections
 - Thursday depending on expert availability